



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,889	12/10/2003	Tetsuro Harada	ASAIN0134	5149

24203 7590 11/04/2004

GRIFFIN & SZIPL, PC
SUITE PH-1
2300 NINTH STREET, SOUTH
ARLINGTON, VA 22204

EXAMINER

LE, JOHN H

ART UNIT	PAPER NUMBER
----------	--------------

2863

DATE MAILED: 11/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/730,889

Applicant(s)

HARADA ET AL.

Examiner

John H Le

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4 and 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hu et al. (USP 5,929,324) in view of Karlon (USP 5,069,880).

Regarding claims 1, 3, 4, and 9, Hu et al. disclose a method for inspecting leakage of a container (e.g. Col.5, lines 22-34, Col.6, lines 11-18), comprising: an ozone gas addition step of adding ozone gas to a higher pressure side of the inside and the outside of the container (e.g. Col.4, lines 1-20, Col.9, lines 9-34); an ozone concentration detection step of measuring an ozone concentration of a lower pressure side of the inside and the outside of the container (e.g. Col.4, lines 53-66); and a leakage determination step of determining presence of the leakage of the container based on a change in the ozone concentration (e.g. Col.7, lines 3-29).

Hu et al. fail to disclose a differential pressure generation step of generating a differential pressure between the inside and the outside of a container.

Karlon discloses a differential pressure generation step of generating a differential pressure between the inside and the outside of a container; an ozone

Art Unit: 2863

gas addition step of adding ozone gas to a higher pressure side of the inside and the outside of the container (e.g. Col.6, line 58-Col.7, line 11); an ozone concentration detection step of measuring an ozone concentration of a lower pressure side of the inside and the outside of the container (e.g. Col.9, line 53-Col.10, line 6, Col.10, lines 50-51).

Regarding claims 2 and 7, Karon discloses the differential pressure generation step has a container storage step of storing the container in a storage container (e.g. Col.5, lines 50-67), and a container pressurization/pressure reduction step of operating one of pressurization and pressure reduction for one of the container and the storage container (e.g. Col.8, lines 38-51).

Regarding claim 6, Karon discloses the container is used as a container in which liquid is sealed (e.g. Col.3, lines 25-33).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to inform a differential pressure generation step of generating a differential pressure between the inside and the outside of a container as taught by Karlon in a method for inspecting leakage of Hu et al. for the purpose of providing an ozone generation system that teaches the method to employ very high pressure within the generator to produce ozone using less energy, up to 50% less, dependent on pressure and temperature (Karlon, Col.5, lines 6-10).

Allowable Subject Matter

Art Unit: 2863

3. Claims 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 5, none of the prior art of record teaches or suggests the combination of a method for inspecting leakage of a container, comprising: a differential pressure generation step of generating a differential pressure between the inside and the outside of a container; an ozone gas addition step of adding ozone gas to a higher pressure side of the inside and the outside of the container; an ozone concentration detection step of measuring an ozone concentration of a lower pressure side of the inside and the outside of the container; and a leakage determination step of determining presence of the leakage of the container based on a change in the ozone concentration, wherein the leakage determination step has an ozone concentration comparison step of calculating a concentration difference between the ozone concentration and a predetermined ozone concentration, and an ozone concentration determination step of determining presence of leakage when the concentration difference is larger than a predetermined value. It is these limitations as they are claimed in the combination with other limitations of claim, which have not been found, taught or suggested in the prior art of record, that make these claims allowable over the prior art.

Contact Information

Art Unit: 2863

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John H Le whose telephone number is 571-272-2275. The examiner can normally be reached on 8:00 - 4:30.

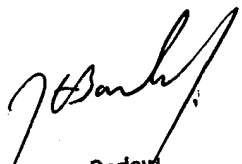
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E Barlow can be reached on 571-272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

John H. Le

Patent Examiner-Group 2863

October 27, 2004


John Barlow
Supervisory Patent Examiner
Technology Center 2800